

## MINUTES FROM THE NPP PROJECT SCIENCE MEETING

**May 10, 2004**

Present: Jeff Privette, Bruce Guenther, Pete Kealy, Jim Shiue, Wayne Esaias, Louis Kouvaris, Jeff Lubelczyk, Ron Vogel, Robert Woodward, Patrick Coronado, John Qu, Joseph Lyu, Hassan Ouaidrari, Alex Lyapustin, Mingji Su, Sam Gasster (via telecon), Natasha Vozza

### Action Items Carried Forward:

- 97. Hassan Ouaidrari** to prepare statement with links to different versions of Cal/Val documents with explanations.  
STATUS: PENDING
- 98. Pete Kealy** to prepare a list of general documents  
STATUS: PENDING
- 100. John Qu** to secure agreement from NGST to use the VIIRS simulation software on NPP1.  
STATUS: PENDING
- 101. PSG group** to look at NPP Science Team web page and NPP Project web page and send comments to Ron Vogel and Mingjie Su.  
STATUS: CLOSED

### New Action Items

- 102. Natasha Vozza** to distribute the document “NPP Mission Success Criteria” to the PSG group.  
STATUS; COMPLETED ON 5/11/04

## MEETING DISCUSSIONS

### 1) General remarks: Jeff Privette:

- Jeff said that NASA Headquarters issued the document: “NPP Mission Success Criteria”. He asked Natasha to distribute it to the PSG group.
- Jeff is putting together a set of SDS usage scenarios that will be used to exercise the evolving SDS models. He said he would ask some PSG members to provide realistic scenarios.
- Jeff is keeping the NPP calendar now and asked people to update him on the events.
- 

### 2) VIIRS: Wayne Esaias, Bruce Guenther

- The Ocean Products IP list has been sent to Hassan.
- K. Turpie is putting together the comments on L1 ATBD review.
- Dave Spencer is calling a meeting on May 14 at 7:30 AM at the IPO on the ROIC issue. Attendance limited by IPO invitation.
- During the Ocean meeting on May 7 the concern was expressed about end of life polarization on VIIRS.

- Wayne said that it would be very beneficial to develop a complete computer model and use it in analysis of test results. Wayne is concerned that it could fall through the cracks of a program. He stated the project should start immediately. Such effort paid off well for MODIS.
- Bruce said that proprietary particle component coating data are needed for this model; may be challenge to access.
- Bruce also mentioned that NGST asked for GSFC help in opto-mechanical aspects of VIIRS instrument. Arlin Bartels will check with Goddard Optics Branch to get this help. Bruce said that he prepared some material on the evaluation of VisNIR ROIC electronic cross-talk evaluations, and those materials were delivered to NGST.

### 3) CrIS: Sam Gasster, Louis Kouvaris

- Sam sent out the latest version of the memo on ATMS/CrIS resampling issue for comments. It is almost ready to be sent out to Jeff and Bruce for review and further comment.
- NGST dropped v 2.1 of CrIMSS EDR code to IDPS and NEXT. The plan is to profile the code, as was done with version 3 and 4.
- Changes to the AER-CrIMSS V4.0.1 code were made at NGST. Sam is looking at identifying the differences between the code NGST dropped and the V4.0.1 that AER delivered to NGST. Louis asked Sam to send him the summary of code changes. Sam will make these differences available.
- Sam has also reviewed the ATBD, OAD and Verification Report corresponding to V4.0.1 and is documenting his comments and would like to get CrIS L1 team feedback on some of his concerns.
- Pete mentioned that when NGST makes code changes it had to go through boarding procedures, which can be found in eRoom.
- Sam stated that EDU re-test review is scheduled for May 26. He is planning to attend. Ralph will go too.
- Louis mentioned that there would be no system data available at this meeting.
- Sam scheduled the next L1 team meeting to discuss the radiometric uncertainty due to emissivity uncertainty in calibration unit (currently not meeting spec). He is presently reviewing the NGST document on this issue. But the document dates back to May 2002.
- Louis stated that there was a CrIS PMR on Tuesday and CrIS Telecon last Friday.
  - The EDU unit was assembled. There were problems with electronics, so they will take the instrument apart and will reassembling it again for May 17. But will not have NEdN data available for the May 26 Data Review Meeting.
  - EDU3 Test schedule is changing often.
  - ITT plans to buy or rent equipment from Raytheon, Fort Wayne for EDU EMI testing.
  - ITT finished converting the Cris SDR code to C++.

### 4) ATMS: Jim Shiue, Joseph Lyu

- The thermal-vacuum test was completed. Data looks good.

- The NEdT spec for band 16 will be met despite earlier problems. And a new MMIC material, called MHEMT, will be used in the future to replace the chips of this channel. This should ensure that the NEdT would probably be even better than the spec requirement.
- Scan Drive System test data is looking good, even though its electronic (control) system is under going a final revision.
- Current antenna test measurements will be discussed at the next L1 telecon on May 21, at 4 - 5 pm.
- EDU test results will be discussed at the L1 telecon in June.

**5) OMPS: John Qu**

- IR filter issue remains. Science Team and OATs asked to provide comment.
- Both Dave Flittner and Ernie will study how to impact OMPS EDR or other products caused by removal of OMPS Limb IR filters. Dave concern is that the lack of an IR filter will make the 1um channel unusable for a 1um aerosol extinction profile CDR that could carry on from the SAM/SAGE record. This is more of a concern for NASA than IPO. Dave will send his comments in two weeks.
- There will be a NPP/OMPS (L1+L2) telecon on coming Monday (05/17). The IR filter issue will be discussed during this telecon.
- Bruce said that it is very important that Larry Flynn, Ozone OAT Lead knows about our position on IR filter.

**6) Algorithms: Pete Kealy**

- IDPS had its 1.3 BAR (Build and Architecture Review). The most notable part was that the DQM (Data Quality Monitoring Subsystem) is lagging behind in its requirements definition. This has impacts on the off-line calibration philosophy, which is still in work at NGST. IDPS V.1.3 will be the main software pre-launch manifestation. This version will be installed in NESDIS and AFWA at the end of 2005
- ATMS SDR code was built from scratch and was not a re-use based on AMSU. There is little documentation associated with the delivery. The project is asking the PSG to help improve the delivery documentation in line with NGST expectations
- Reduction of a scope of the Ground Readiness Review. As part of NGST risk reduction effort the scope of GRR may be reduced. The impact is that several EDRs may not be implemented in the software at GRR (launch -9 months). At the moment the next major milestone TRR (launch -2 months) is expected to contain all the EDRs. Regardless, it is most critical to preserve all the SDR's and infrastructure software in all reviews. If this risk plan is approved (~2 weeks), we will let the Science Team know which EDRs will be affected.

**7) NEXT: Jeff Lubelczyk**

- Additional storage is being bought at Aerospace for VIIRS
- A mirror installation is planned for GSF.

**9) NPP web site: Ron Vogel**

- Documents are being placed on the web site.

**10) The next PSG is scheduled for Monday, May 24. Electronic reports (in lieu of a 5/17 meeting) are due by assigned PSG members by COB on Friday, May 14.**